

Antennæ black; head and thorax dark grey; abdomen grey above, yellowish grey below.

Expanse of wings 2 inches.

Belongs to the group of *A. panda*, Godt., to the female of which on the upperside it bears considerable resemblance.

One specimen only. In Mr. Grose Smith's collection.

XXVIII.—*Descriptions of new Species of Land-Shells from New Guinea.* By EDGAR A. SMITH.

THE species about to be described were collected by Mr. William E. Armit during an exploring expedition on the north-east coast of British New Guinea, on Mount Maneau, on the mainland, and on Mount Moratau, Goodenough Island; also at the back of Cloudy Bay, on the south coast. It is to be regretted that the exact locality of the species can only be given in one or two instances.

1. *Nanina amblytropis* \*.

Testa orbicularis, subacute carinata, spira brevi convexe conoidea, anguste perforata, supra fusca, haud nitida, subtus pallidior, corneo-lutescens, polita; anfractus 6, lente crescentes, leviter convexiusculi, inferne ad suturam impressi, submarginati, lineis incrementi obliquis arcuatis, prope suturam subplicatis, striisque microscopice radiantibus et minute rugulosis sculpti, ultimus ad peripheriam acute angulatus, subtus nitens, haud microscopice striatus, lineis incrementi modo sculptus; apertura obliqua, angulatim sublnata, intus albida vel livido-alba; peristoma tenue, margine columellari leviter incrassato, superne expanso, foramen umbilicale semiobtegente.

Diam. maj. 23 millim., min. 20, alt. 13; apertura 7 alta, 11½ lata.

I am inclined to think that this species does not exceed the dimensions given above. The spire is convex and terminates in an obtuse apex. The sculpture consists, besides the lines of growth, of exceedingly fine wrinkly striæ in the same direction. It is this minute striation which produces the dull surface. Underneath, where they are not present, the shell is highly glossy.

2. *Nanina lissorhophe* †.

Testa *N. Cairni* ‡ similis, sed spira minus conoidea, anfractibus

\* ἀμβλύς, blunt; τροπίς, keel.

† λισσός, smooth: ραφή, a seam or suture.

‡ Ann. & Mag. Nat. Hist. 1887, vol. xix. p. 417, pl. xv. fig. 5.

lentius accrescentibus, lineis incrementi confertis, fortioribus sculpta, anfr. ultimo infra carinam haud concave impresso, subtus striis concentricis vix visibilibus.

Diam. maj.  $25\frac{1}{2}$  millim., min. 22, alt. 13; apertura 9 alta, 13 lata.

This species is seen at a glance to be distinct from *N. Cairni*, which it resembles in colour and the width of the umbilicus. The sculpture of the upper surface is quite different. The close striæ stop short just below the suture, which is consequently margined beneath with a smooth border.

### 3. *Rhysota Armiti*.

Testa perforata, orbicularis, carinata, supra saturate fusca, versus apicem livido-purpurea vel rufescens, haud nitida, infra polita, olivaceo-fusca, versus umbilicum pallidior, subflavida; spira depresso conoidea, ad apicem obtusa; anfractus 6, lente accrescentes, vix convexiusculi, lineis incrementi oblique arcuatis tenuissimis minute subrugulosis sculpti, ultimus oblique rugosus et irregulariter indentatus, ad peripheriam acute angulatus, infra, concentricè substriatus, lineis incrementi tenuibus ornatus, versus labium inferius leviter inflatus vel saccatus; apertura obliqua, sublunata, saturate livido-fusca; peristoma intus incrassatum, carneum, margine columellari supra umbilicum breviter expanso et reflexo.

Diam. maj. 45 millim., min. 39, alt. 22; apertura  $13\frac{1}{2}$  alta, 23 lata.

This species is allied to *R. hercules* of Hedley, but is separable on account of its smaller size, the less elevated spire, the slightly more acute keel, the less convex whorls, the rather more distinct concentric striation on the lower surface, and the peculiar inflation of the base. In colour the two species are rather similar, but *R. hercules* is greener beneath and has a rosy or pink peristome, which, in the present species, is of a flesh-colour and not so pink. Slight differences of sculpture are also discernible; but these are more readily seen by a comparison of the two forms.

### 4. *Helix (Hadra) strophora* \*.

Testa depresso subglobosa, ad peripheriam obtuse carinata, late umbilicata, saturate castanea; spira convexè conoidea, ad apicem obtusa; anfractus  $5\frac{1}{2}$ , convexiusculi, lineis incrementi striati, ultimus antice breviter descendens; apertura late lunata, obliqua, saturate fusco-purpurea; peristoma undique mediocriter expansum et reflexum, pallide purpurascens, margine columellari albo, latius expanso.

Diam. maj. 34 millim., min. 28, alt. 23; apertura 13 alta, 17 lata.

*Hab.* Cloudy Bay.

\* *στειροφόρος*, keeled.

This species recalls the small form (var. *semicastanea*) of *H. bipartita*, but is distinguished by the obtuse keel, wider umbilicus, less elevated spire, colour, &c.

5. *Helix (Dorcasia) subplicifera*.

Testa depresso globosa, medioeriter umbilicata, solidiusecula, pallide fuscescens, subtus pallidior, lineis incrementi oblique curvatis, in anfr. ultimo subpliciformibus, sculpta; spira brevis, conoidea, ad apicem obtusa; anfractus 5, convexi, sub lente accrescentes, sutura profunda sejuncti, primus minute punctatus, ultimus antice descendens; apertura obliqua, late lunata, dilutissime rufescens; peristoma albidum, anguste expansum et reflexum, margine columellari superne dilatato, umbilicum partim obtegente.

Diam. maj.  $20\frac{1}{2}$  millim., min. 17, alt. 14; apertura intus  $8\frac{1}{2}$  alta, 9 lata.

This species bears some resemblance to *H. argillacea*, Férus., when viewed from above. It is, however, less globose, more depressed, more widely umbilicated, has a smaller aperture, and is more plicately sculptured. Only the apical whorl is punctate.

6. *Helix (Chloritis) ephamilla* \*.

Testa *H. Leei* simillima, sed plerumque paulo major, spira leviter altiore, apertura latiore, livida, labro latius expanso, umbilico vix granulato.

Diam. maj. 34 millim., min. 27, alt. 23; apertura intus 13 alta, 14 lata.

This form may be the var. *papuensis* of *H. Leei*, which is referred to by Mr. Hedley (Proc. Linn. Soc. N. S. W. 1891, vol. vi. p. 83), and it is with considerable hesitation that I venture to distinguish it specifically from that species. Besides the differences above mentioned, it may also be remarked that the colour of the peristome is reddish in *H. Leei* and livid in the present species, becoming much darker in some specimens at the umbilicus. All the examples are clothed with an olivaceous epidermis, beset with very short stiff bristles. These are generally more or less worn off, but their position is indicated by minute pitting all over the surface. A curious difference in the relative weight of the different parts of the shell is shown by the position it assumes when placed on a flat surface with the aperture downwards. In *H. Leei* the peristome rests upon the surface, the spire being lateral, whereas in *H. ephamilla* the apex is vertical and the lip stands erect.

\* ἐφάμалλος, rivalling.

7. *Helix (Chloritis) perambigua*.

Testa *H. ephamilla* similis, sed epidermide lævi, haud setosa amicta, spira paulo altiore, anfractu ultimo minus inflato, peristomate minus expanso.

Diam. maj. 32 millim., min. 25, alt. 23; apertura intus 12 alta, 15 lata.

There are two specimens of this species, agreeing in form and epidermis, but differing in size and colour. The larger one, the dimensions of which are given above, is purplish red at the apex, like *H. ephamilla*, the rest of the shell being livid beneath the epidermis. The smaller example is only 22 millim. in its greatest diameter and of a purplish red throughout. The epidermis, however, is quite smooth, with the exception of the lines of growth, as in the larger specimen. The aperture in the latter is bluish, and purplish red in the small example.

The general resemblance of this species to *H. ephamilla* is so remarkable that, unless carefully observed, its distinctness would be passed by unnoticed. It seems to me, however, that the differences referred to sufficiently separate the two forms.

8. *Helix (Cristigibba) Musgravei*.

Testa *H. semirasa* similis, sed minor, fascia angusta unica nigrescente supra ornata, superficie minute et confertim punctata; peristomate albido.

Diam. maj. 14 millim., min. 12, alt. 6½.

*Hab.* Back of Cloudy Bay.

This species, *H. semirasa*, and *H. leptochila* are closely related. *H. semirasa* resembles the present species in form, but differs in size, sculpture, banding, and colour of the peristome. *H. leptochila*, Canefri, from the Molucca Islands, is larger, has a broader colour-band above, a rosy peristome, and, judging by the figure, is of a different form. In this species the pitting of the surface (indication of a pilose epidermis) is very minute and close, but in *H. semirasa* it is comparatively scattered and remote. No mention is made by Canefri of this kind of sculpture upon *H. leptochila*; but, being difficult of observation, it may have been overlooked.